such as improved medication adherence. The objective of this study was to estimate the impact of type of pharmacy (chain/independent) on adherence to Oral Hypoglycemic Agents (OHAs) in patients newly diagnosed with type 2 diabetes. **METHODS:** Newly diagnosed type 2 diabetes patients during a four-year period were identified from a Medicaid claims database. The provider of the index prescription was classified as a chain or independent pharmacy. Utilization patterns (switching, augmentation, discontinuation, non-modification) and adherence to OHAs (Medication Possession Ratios) were computed for a 12-month follow-up period from the date of the index OHA prescription. A multivariate framework was used to estimate the impact of type of pharmacy on utilization patterns and adherence, controlling for demographics, co-morbidity, diabetes severity, and regimen complexity. **RESULTS:** A total of 1214 newly diagnosed type-2 diabetes patients were identified (independent pharmacy = 430; chain pharmacy = 784). Utilization patterns were not significantly different between patients filling their prescriptions at an independent pharmacy versus those filling prescriptions at a chain pharmacy. Independent-sample t-tests indicated that adherence to OHAs (Mean ± S.D) was significantly higher for patients filling their prescriptions at a independent pharmacy (0.90 ± 0.11) as compared to those filling prescriptions at a chain pharmacy (0.87 ± 0.13) [p = 0.02]. Results of a semi-log OLS model indicated that controlling for covariates, patients filling prescriptions at an independent pharmacy had 2.30% higher adherence to OHAs as compared to those filling prescriptions at a chain pharmacy [p = 0.04]. **CONCLUSION:** Patients filling prescriptions at independent pharmacies have significantly higher adherence to OHAs as compared to those filling prescriptions at chain pharmacies. This improved adherence may affect glycemic control and consequently incidence of diabetes related complications.

PDB30

COSTS AND ADHERENCE ASSOCIATED WITH LONG TERM USE OF THIAZOLIDINEDIONE THERAPY IN MEDICAID ENROLLED TYPE 2 DIABETES PATIENTS

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OBJECTIVES: Long-term adherence to medications among type 2 diabetes patients may have an impact on health care costs and hospitalizations. This study examined differences in medication adherence, and persistence, hospitalization and health care costs between patients with type 2 diabetes enrolled in the North Carolina Medicaid newly starting thiazolidinedione (TZD) therapy and those starting other oral antidiabetic agents. **METHODS:** A total of 1774 patients newly starting TZD therapy between July 2001 and June 2002 were compared to 218 patients starting metformin and 1199 patients starting sulfonylureas for health care costs and outcomes in the post-medication start year. The cohorts were followed for 30 months (July 2002 to December 2004) to examine if there were any differences in outcomes such as adherence, persistence, hospitalization and total health care costs that could be associated with type of therapy. Multivariate regression techniques incorporating health care utilization in the year prior to start of new therapy were utilized to determine the net cost impact of one therapy versus the other. **RESULTS:** The average health care costs were less for patients on TZD [836.34 (1176.30)] as compared to other two groups. Persistence and adherence rate to TZDs was similar to other Sulfonylureas, and higher than Metformin. Multivariate analysis showed that patients on TZD therapy had significantly higher medication adherence while metformin users had significantly lower medication adherence as compared to sulfonylureas. Patients on TZD therapy were associated with decreased likelihood of hospitalization and decreased number of hospitalizations as compared to sulfonylureas users. Adherence to new therapy was significantly associated with decreased number of hospitalizations. **CONCLUSIONS:** Long-term use of thiazolidinedione therapy in a Medicaid-enrolled type 2 diabetic population was associated with significantly greater treatment adherence, and reduced hospitalization in the post-start year compared to patients starting other oral antidiabetic agents.

PDB31

ASSOCIATION BETWEEN RACE AND MEDICATION ADHERENCE IN TYPE 2 DIABETES MEDICAID ENROLLEES

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OBJECTIVE: Medication adherence is an important factor in improving outcomes among type 2 diabetes patients. The primary objective of this study was to determine the association between race and medication adherence among type 2 diabetes patients. The secondary objectives were to determine the association between type of therapy and medication adherence and to determine if race has an influence in determining the medication adherence to specific antidiabetic therapy. **METHODS:** This retrospective cohort study was conducted using North Carolina Medicaid prescription claims. A total of 1774 patients newly starting Thiazolidinediones were compared to 216 patients starting metformin and 1179 patients starting Sulfonylureas. Medication adherence was measured as Medication Possession Ratio using prescription refill patterns. Multivariate regression analyses were used to determine the difference in adherence rates adjusting for other covariates. **RESULTS:** Whites' had highest mean medication adherence rate of 59% which was significantly different from Blacks (54%) ($p < 0.05$). Thiazolidinediones' adherence rate of 60% was significantly higher than metformin (22%) and sulfonylurea group (57%) (both $p < 0.05$). Whites had higher adherence to all the therapies as compared to other two races. In multivariate analyses, the adherence rate of black patients was found to be significantly lower by 12% as compared to whites after adjusting for other variables ($p < 0.05$). Metformin users were associated with 62% decrease in adherence rate as compared with the sulfonylurea group and 63% decrease in adherence rate as compared with thiazolidinediones (both $p < 0.05$). **CONCLUSION:** Antidiabetic medication adherence was associated with race as well as type of therapy. Future research should focus on investigating patient-related and therapy-related factors affecting medication adherence in type 2 diabetes patients.

PDB32

A SYSTEMATIC REVIEW OF ADHERENCE WITH DIABETES TREATMENT AND THE IMPACT OF NON-ADHERENCE ON HEALTH CARE COSTS

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OBJECTIVE: The purpose of this study was to determine the extent of adherence among diabetic patients to treatments and